# Dossier: EPICORE BIOSYSTEMS, INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $73,770.00

**Award Date:** 2024-05-15

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

EPICORE Biosystems, Inc. is a spinout from the Northwestern University's Querrey Simpson Institute for Bioelectronics dedicated to developing and commercializing advanced microfluidic wearable sensors that provide real-time, personalized insights into human health and performance. Their core mission is to empower individuals, athletes, warfighters, and researchers with actionable data derived from continuous, non-invasive monitoring of biomarkers in sweat. They aim to solve the problem of infrequent, inconvenient, and often inaccurate traditional methods of physiological data collection, offering a continuous and accessible alternative. EPICORE's unique value proposition lies in its proprietary microfluidic technology, enabling the extraction, capture, and analysis of a diverse range of biomarkers from sweat directly on the skin, providing a real-time, comprehensive picture of an individual's physiological state, hydration status, and nutritional needs.

**Technology Focus:**

* Gatorade GX Sweat Patch:\*\* A single-use microfluidic sweat sensor patch designed to analyze sweat rate, sodium loss, and fluid loss during athletic activities. The patch interfaces with the Gatorade GX app to provide personalized hydration recommendations.
* Discovery Platform:\*\* A modular, multi-analyte wearable sensor platform intended for research and clinical use. This customizable platform can be configured to measure a wider array of biomarkers including cortisol, glucose, lactate, and electrolytes for continuous, real-time monitoring of various physiological parameters.

**Recent Developments & Traction:**

* Series A Funding:\*\* In July 2022, Epicore Biosystems secured $20 million in Series A funding led by Valor Equity Partners with participation from Alumni Ventures and other strategic investors. This funding is intended to accelerate product development and commercialization of their advanced sweat-sensing technology.
* Partnership with the U.S. Air Force:\*\* In 2023, Epicore Biosystems entered into a Cooperative Research and Development Agreement (CRADA) with the Air Force Research Laboratory (AFRL) to advance wearable sensor technology for warfighter monitoring and performance optimization. The partnership focuses on integrating Epicore's sensing technology into military-specific applications.
* Commercial Expansion of Gatorade GX Sweat Patch:\*\* Continuing expansion and availability of the Gatorade GX Sweat Patch through various retail channels and professional sports partnerships.

**Leadership & Team:**

* Roozbeh Ghaffari, PhD (CEO):\*\* Co-founder of Epicore Biosystems and Research Associate Professor at Northwestern University. He has extensive experience in flexible hybrid electronics, microfluidics, and wearable sensor development.
* John Rogers, PhD (Co-founder):\*\* Co-founder of Epicore Biosystems and Director of the Querrey Simpson Institute for Bioelectronics at Northwestern University. He is a renowned materials scientist and pioneer in biointegrated electronics.

**Competitive Landscape:**

* Nix:\*\* Nix is another company developing sweat-based wearable sensors, primarily focused on hydration monitoring. EPICORE differentiates itself through its broader multi-analyte sensing capabilities and the potential for more comprehensive physiological data.
* BSX Athletics:\*\* BSX Insight originally focused on lactate threshold measurement via wearable sensors. EPICORE differentiates itself through its broader biomarker detection capabilities, direct sweat analysis, and integration within larger brand ecosystems (e.g., Gatorade).

**Sources:**

1. [https://epicorebiosystems.com/](https://epicorebiosystems.com/)

2. [https://www.prnewswire.com/news-releases/epicore-biosystems-raises-20-million-series-a-to-advance-sweat-sensing-technology-for-human-performance-and-clinical-applications-301590284.html](https://www.prnewswire.com/news-releases/epicore-biosystems-raises-20-million-series-a-to-advance-sweat-sensing-technology-for-human-performance-and-clinical-applications-301590284.html)

3. [https://querrey.northwestern.edu/news/2022/epicore-biosystems-raises-20m.html](https://querrey.northwestern.edu/news/2022/epicore-biosystems-raises-20m.html)

4. [https://techcrunch.com/2022/07/28/epicore-biosystems-raises-20m-to-advance-sweat-sensing-technology/](https://techcrunch.com/2022/07/28/epicore-biosystems-raises-20m-to-advance-sweat-sensing-technology/)